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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,266	02/29/2000	Carl William Riley	08266-0197	1764

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EXAMINER

THOMAS, COURTNEY D

ART UNIT PAPER NUMBER

2882

DATE MAILED: 03/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/515,266

Applicant(s)

RILEY, CARL WILLIAM

Examiner

Courtney Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5,6 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-19, 21-32, 34-59 and 61-69 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsuji et al. (U.S. Patent 5,664,035).

3. As per claim 1, Tsuji et al. disclose an optical isolation device for transmitting power and signals between a local source circuit and a remote isolated circuit, the optical isolation device comprising: a light source (i.e. Fig. 1, #131) for generating light; an optical channel (i.e. Fig. 1, #41) having a first end (i.e. Fig. 1, near connector 51a) on which the light impinges and a second end (i.e. Fig. 1, near connector 51b) optically coupled to the first end; an opto-electrical detector (i.e. Fig. 1, # 223) adjacent the second end producing electrical power when impinged upon by the light; an optical signal generator (i.e. Fig. 1, #222; column 4, lines 41-43) powered by the electrical power generated by the opto-electrical detector (column 4, lines 55-58) and coupled to a (-)circuit (i.e. Fig. 1, #21), the optical signal generator generating optical signals in response to input provided by the circuit (see Fig. 1), the optical signals impinging upon the second end (i.e. Fig. 1, near connector 51b) of the optical channel; an opto-electrical sensor (i.e. Fig. 1, #132) adjacent the first end (i.e. Fig. 1, near connector 51a) of the optical channel generating electrical signals in response to the optical signals(column 5, lines 35-36); and wherein the light and optical signals are both propagated through the optical channel (see Fig. 1).

4. Tsuji et al. do not explicitly disclose however, a circuit that is remotely isolated. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a circuit separated (and isolated) from the station 20 (see Tsuji et al., Fig. 1), for (i.e.) thermal considerations within a housing environment, electrical isolation from housing elements, etc., since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

5. As per claims 2-19, Tsuji et al. do not explicitly disclose all the limitations as cited in the aforementioned claims, however, Tsuji et al. do anticipate variations, modifications and/or alternate embodiments that do not deviate in scope (or spirit) from the disclosed invention (see column 7, lines 12-18). Additionally, it would have been obvious to one having ordinary skill in the art to devise a system further incorporating various light sources (i.e. monochromatic, laser, LED, pulsed, continuous, wavelength specific, frequency dependent, etc.), configured to supply enough power to receiving elements (see title of Tsuji et al., abstract and summary), since these elements and techniques are well within the skill level of a practitioner in the art.

6. As per claims 21-32, Tsuji et al. do not explicitly disclose all the limitations as cited in the aforementioned claims, however, Tsuji et al. do anticipate variations, modifications and/or alternate embodiments that do not deviate in scope (or spirit) from the disclosed invention (see column 7, lines 12-18). Additionally, it would have been obvious to one having ordinary skill in the art to devise a system further incorporating various light sources (i.e. monochromatic, laser, LED, pulsed, continuous, wavelength specific, frequency dependent, etc.), configured to supply enough power to receiving elements (see title of Tsuji et al., abstract and summary) and a controller (i.e. shutter, computer (software/ hardware), electronic triggering mechanism/ means,

etc.) to regulate emission properties of the aforementioned light sources since these elements and techniques are well known and within the skill level of a practitioner in the art.

7. As per claims 34-59, Tsuji et al. do not explicitly disclose all the limitations as cited in the aforementioned claims, however, Tsuji et al. do anticipate variations, modifications and/or alternate embodiments that do not deviate in scope (or spirit) from the disclosed invention (see column 7, lines 12-18). Additionally, it would have been obvious to one having ordinary skill in the art to devise a system further incorporating various light sources (i.e. monochromatic, laser, LED, pulsed, continuous, wavelength specific, frequency dependent, etc.), configured to supply enough power to receiving elements (see title of Tsuji et al., abstract and summary) and a controller (i.e. shutter, computer (software/ hardware), electronic triggering mechanism/ means, etc.) to regulate emission properties of the aforementioned light sources since these elements and techniques are well known and within the skill level of a practitioner in the art.

8. As per claims 61-69, Tsuji et al. do not explicitly disclose all the limitations as cited in the aforementioned claims, however, Tsuji et al. do anticipate variations, modifications and/or alternate embodiments that do not deviate in scope (or spirit) from the disclosed invention (see column 7, lines 12-18). Additionally, it would have been obvious to one having ordinary skill in the art to devise a system further incorporating various light sources (i.e. monochromatic, laser, LED, pulsed, continuous, wavelength specific, frequency dependent, etc.), configured to supply enough power to receiving elements (see title of Tsuji et al., abstract and summary) and a controller (i.e. shutter, computer (software/ hardware), electronic triggering mechanism/ means, etc.) to regulate emission properties of the aforementioned light sources, as well a plurality of

transmission means since these elements and techniques are well known and within the skill level of a practitioner in the art.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 20, 33 and 60 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tsuji et al. (U.S. Patent 5,664,035).

11. As per claim 20, Tsuji et al. disclose an opto-electric device comprising a first circuit (i.e. Fig. 1, #11) including a first light source (i.e. Fig. 1, #131); a second circuit (i.e. Fig. 1, #21) including a second light source (i.e. Fig. 1, #222) and a photovoltaic cell (i.e. Fig. 1, #223) configured to provide energy to at least a portion of the second circuit; and a fiber optic line (i.e. Fig. 1, #41) optically coupled to the first and second circuits, light from the first light source being transmittable to the photovoltaic cell over the fiber optic line, and light from the second light source being transmittable to the first circuit over the fiber optic line.

12. As per claim 33, Tsuji et al. disclose opto-electric device, comprising: a first circuit (i.e. Fig. 1, #11) including a first light source (i.e. Fig. 1, #131); a second circuit (i.e. Fig. 1, #21) including a second light source (i.e. Fig. 1, #222) and a photovoltaic cell (i.e. Fig. 1, #223) configured to provide energy to at least a portion of the second circuit; and a first optical channel (i.e. Fig. 1, #41; column 7, lines 8-11) optically coupled to the first and second circuits, light from the first light source being transmittable to the photovoltaic cell over the optical channel.

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13. As per claim 60, Tsuji et al. disclose a method of electrically isolating a remote circuit from a source circuit comprising the steps of: generating a first light signal in the source circuit (i.e. column 1, lines 29-30); optically coupling the first light signal to the source circuit so that the remote circuit receives the first light signal from the source circuit (i.e. column 1, lines 30-32); generating power in the remote circuit from the first light signal received by the remote circuit (i.e. column 1, lines 32-41); powering the remote circuit by the generated power (i.e. column 4, lines 55-58); generating a second light signal in the remote circuit (i.e. column 1, lines 39-40); and optically coupling the second light signal to the source circuit so that the source circuit receives the second light signal from the remote circuit (i.e. column 1, lines 39-48).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (703) 306-0473. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305 3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3594 for regular communications and (703) 305-3594 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

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Courtney Thomas

October 22, 2001


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